114 121 184 much as possible the customary ways of doing things, and though one could not hope for an unchanging or an isolated village, one could find a village relatively so, even if, as was the case with all the villages, they had felt the effects of the deadly campaign for Okinawa.

On one of these trips, I talked with the headman of the village of Hanashiro and then with the officials in the nearby village office of Oushichan, and concluded on the basis of what I saw of the agriculture and the conditions described by these officials, that this small village would be a satisfactory selection. In the beginning, an epidemic of encephalitis made it wise to be away from the village at night and for [164] the first month the investigations were confined to daytime work. This was a serious handicap which I tried to overcome later in the tour by living in the village.

While working in Hanashiro, I had frequent occasion to pass the villages of Minatogawa-ikku and Minatogawa-niku, and I was impressed with the opportunity to study the life of a village in which agriculture [226] did not predominate, and in which the chief emphasis was on fishing and [324] stonecutting. I therefore decided to include the fishing village, and took up residence there late in August 1951, making frequent trips on the side to Hanashiro.

As interest and awareness increased, I became convinced that another type of village should be added to the agricultural and fishing selections. It should be one in the northern forested area (the Kunigami region). [361] After discussing this with American and Okinawan forestry officials, I followed their suggestion and lived in the village of Matsuda in Ginoza township. It proved to be a good choice, with the possible reservation that Matsuda is somewhat of a model village whose conditions might be better than the average.

The villages needed to be small enough for one man to study. And they proved to be admirable communities for realising my original intention of showing similarities and contrasts in an agricultural village, a fishing village, and a village in a forest setting.

121 The results do not constitute a complete ethnography of each of the villages. Such was not my intention, and this could not have been done in the time available. The material has been organised around four central [128] subjects: (1) the nature of the family system and its influence through inheritance on land tenure and land use, (2) ways of life as illustrated in the studies of the agricultural, fishing-stonecutting, and forest communities, (3) daily family life as a concrete expression of the family system, and (4) wider community relationships, including political and cooperative organizations, education, and religion.

The basic theme is that a fruitful approach to the study of modern cultures lies in the borderland area between the social and the natural sciences, and that, in the case of these Okinawan villages, the study [311] would take the form of discovering in what ways the people are using their natural environment and the manner in which the culture has changed and

1: Glacken E-5 (1951-1952) 1953 AC7 Okinawa AC7

1

Generalities on the Population History of Okinawa Island

Virtually nothing is known, to my knowledge, of the growth of population in Okinawa in historic times. Early travellers made some estimates, but they gave no basis for them. In a previous chapter, it was mentioned that the introduction of the sweet potato in the early 17th century must have allowed a greater population on the island than had hitherto been the case. No doubt also malaria and other diseases kept the population down, at least until the latter part of the 19th century. This ignorance of population growth extends down to recent history.[1]

There seems to have been very little immigration to the Ryukyus and the population has probably been homogeneous for long periods of time. There were many Japanese in Okinawa, but these were largely in the towns and main cities. Most of them left after the war.[2] This meant that the population of Okinawa continued to be made up of preponderantly the native born, though in recent years there has been some immigration of Amamians.

Emigration during the 20th century has been the outstanding fact in the population history of the island. Little is known of the nature of this emigration, but it is believed to have started in the early years of the twentieth century. Until World War II, emigration was the answer to the problem of a population that was growing beyond the ability of the island's resources to support it. It has been estimated that the emigration from Okinawa prefecture in the period 1920-1940 was over 193,400 persons. This represented a loss of 98% of the estimated natural increase for the 1920-1940 period. It was 34% of the prefecture's total 1920 population.[3]

The Okinawan campaign, also, was accompanied by large scale displacements of people who remained on the island. It was estimated that in a pre-invasion shifting of the population, over 3/4 of the people

[Text continues on TOP of P. 60--analyst]

1 Dr. Green in 1853 estimated the population of Okinawa at 150,000 or possibly 200,000. But this was only a crude guess. Hawks, Perry's expedition to Japan, II, 36. For population estimates prior to World War II, see CA Handbook, as cited, 45-51.

2 As of Nov. 30, 1946, 57,345 Japanese, 1,755 Koreans, and 21 Formosans had been repatriated from the Ryukyus, with 3,706 Japanese remaining to be repatriated. See note 3 following.

3 Newman, Marshall T. and Eng, Roman, L. The Ryukyu people, a biological appraisal. Amer. Journ. of physical anthropology, n.s., 5 (1947), 113-57. Reference on pp. 135-36. This estimate was made by subtracting the estimated natural increase from the total increase, 1920-40, making allowances for the under registration of births. On post-war population history immediately following the war, see pp. 135-46 of this article.

The truck or horsecart of the buyer comes to the stonecutting area, the blocks are loaded and taken away. Prior to sale, for convenience, stone may be taken from the cutting area. It is loaded on horse carts, the men carrying the heavy blocks by means of ropes looped around the ends of the stone and over poles which in turn rest on the shoulders. A six foot length (1 ken linear measure), one foot wide and about ten inches thick sells for ¥110 (1951-52).

Foot injuries are the chief hazards of this occupation. The toes may be accidentally cut by the long chisel, and there is danger of bruising or crushing by accidentally dropping the block, or by rolling when it is being dislodged. Very hard and calloused hands are the mark of the stonecutter; his hands are especially conspicuous for the hard, raised areas on the pals around the base of the fingers, the result of the constant lifting and pounding of the long chisel. There is also danger to the eyes in flying chips but few use glasses or goggles.

Like some phases of fishing, this work is for the young and the physically mature men. After the middle forties or early fifties, a man no longer does the heavy work and confines himself to lighter chores. The very old and the retired may chip and finish the foundation and the pyramidal stones.

If a cutter is unable to extract all the stone in a plot whose stone he has bought, there are also customary solutions. When the father dies, his son continues the workings and returns the field to the owner. If a stone worker moves to another village when only half the work has been done, he arranges for a friend, relative, or neighbor to take over the remaining part.

4

Restoring the Land

Formerly excavations (which might be 10 or 15 feet deep and the size of a large room) were refilled by the buyer of the stone rights. Rocks, pebbles, and miscellaneous trash were used as fill, but following the war there has been a heavy demand for rock and stone for road construction. As a consequence, many excavations are now only partly refilled. After refilling, houses are built on the sites of formerly excavated land. Here and there one can see sweet potatoes or vegetables growing on land which formerly was covered with stone. The original state of the land, its appearance after excavation and its restoration may be seen in Figure 2. Evidences of this reclamation may be seen throughout the stoneworking area.

Minatogawa, because it lacks vegetation for protective and decorative purposes, is a good example of the use and adaptation of stone to local needs. There are still stone fences, waist or shoulder height, and many small stone boundary lines, a foot or two and of uneven height. Coral stones, weathered by the sea, honeycombed and pocked, are seen everywhere.

1: Glacken E-5 (1951-1952) 1953 AC7 Okinawa AC7

Nevertheless, to superficial observation at least, villagers seem to enjoy good health. Most of them are energetic. Obesity is very unusual. The average man or woman of any age has little spare flesh. The most frequent complaints are of dysentery, constipation, colds, boils and swellings, and intestinal parasites. There are signs of malnutrition in the distended bellies of some small children, probably due to the unrelieved and starchy diet of the sweet potato,[6] with extremely few animal fats and proteins.

The sores and scabs on the heads, faces, arms, and legs of infants and young children are still the curse of childhood, conditions made worse by the flies which swarm around them. (In summer, I have seen as many as 20 flies on the face of a sleeping child without a trace of any muscular reaction). There are few Okinawans today who do not bear the scars of these sores of infancy, especially on the scalp. (Young men are sensitive about this and it is one reason also for keeping the hair long). Younger parents now are beginning to use various disinfecting powders and talcs to prevent these sores (which look like impetigo) and seem to have abandoned the attitude of a previous generation that these were childhood experiences to be endured. Much could be done to eliminate these diseases of childhood by a campaign in which local groups like the Woman's Association and the public health authorities joined.

In the summer months, Jap B encephalitis (known as nUen) is very much dreaded. Some villagers had only a vague idea that it was a brain fever and a few knew that the mosquito was the vector.

According to residents of each of the villages, no cases of leprosy had been discovered in recent years. This disease is also dreaded and I doubt that an attempt would be made to conceal a case.

Young people have uncommonly beautiful, evenly spaced, white teeth. This seems to have been an Okinawan characteristic for a long time, as Basil Hall commented upon it 135 years ago. Around the late teens or early twenties, the teeth decay, and there are many extractions and replacements with gold or steel false teeth. Some extractions are intentional, especially among young girls who believe that a gold tooth sets them apart and adds to beauty. But I am convinced that this is of minor importance as an explanation. Okinawans

6 I am not acquainted with any analyses of the composition of the Okinawan sweet potato. In laboratory tests of an improved high-starch American variety, the composition when ground for starch was: moisture, 64.5%; starch, 25.5%; sugars, 2.8%; crude protein, 1.5%; pectic substances, 2.2%; crude fat, 0.6%; mineral matter, 0.9%; other, 2%. Sweet potato carotene can be readily converted to Vitamin A. See Dawson, P. R., Greathouse, L. H., and Gordon, W. O. Sweet potatoes: more than starch. In: Crops in peace and war. (U. S. Dept. of Agric., The yearbook of agriculture 1950-51) Washington, 195-203. Ref. on 195, 201.

164 blame tooth decay on the brown sugar. It may be diet or water. Okinawans
[753] Use of tooth brushes varies considerably with individuals and
[515] families.

515 The standard of cleanliness in Okinawan homes is not high,
511 but this cannot be ascribed to indifference. One should constantly bear in mind that it is easy to keep clean with plenty of soap, showers, hot running water, washing machines, and flush toilets.

9

Native Medicine

278 The native medicine has already been referred to in the discussion of fish and wild plants used as medicines. Their use has declined with growing reliance on manufactured drugs and pharmaceuticals.

[751] The golden needle (kinbari) is still used by rural doctors (yabu)
[759] in the treatment of inflamations of the joints and rheumatism. There was one such doctor in Hinatogawa, but ordinarily he is called only when real medical attention is not available.

[413] The needle is scarcely thicker than a horse hair. It is encased in a shaft about 2 3/8 inches long. The grip or base of the needle is 3/4 of an inch long and the needle itself 1 7/8 inches. The needle is tapped and gradually worked into the affected part, and a length from 3/4 to one inch is broken off and allowed to remain in the body and circulate to effect its curative powers.

Blood letting is still practiced, often by the individual himself. Thin cuts are made with a razor, generally on the forehead above the eyebrows and slanting toward the bridge of the nose. This is done to relieve headaches and general pains and may be resorted to after aspirin has failed to relieve a headache. On a close look, one can often observe the slight, thin, long scars, which look like tiny wrinkles, resulting from these slashes. During the operation, a sake cup is held up to the place being cut. The cup may even have a little sake in it. When done by a native doctor, the blood may be sucked through a small tube and allowed to drip into a sake cup.

Cauterisation using moguse (moxa) also is still common. One can frequently see scar tissue, the results of burning moguse on the flesh, usually in the area around the wrist. Moguse is applied with glowing charcoal sticks, burning thread, or tobacco. It is used for no specific complaint, but as a counter-irritant cureall for a wide variety of ailments.

[386] Acupuncture apparently is little used now. Formerly an area was pricked with a needle, or a series of needles brought to a point, and an indigo dye applied. One can observe these round spots, circles of dots, occasionally on the shoulders and the backs of older people. These should not be confused with tattooing.

2:Maretzki & Maretzki E-5 (1954-1955) 1963 AC7 Okinawa AC7
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vations one finds temperate zone forests. Typical for the area are numerous grasses growing along the mountainside and on top of hills. Among them, the most permanent in appearance and use are miscanthus grass and a dwarf bamboo. Panadanns bushes line the beaches and areas close to them. Pine trees are common. Fukugi trees grow in the village but also in the hinterland. Here and there cycad palms lend the scenery a special tropical touch. Wild flowers grow almost all year.

The heavy underbrush is the habitat of several species of poisonous snakes for which the Ryukyu Islands are notorious. The most common, the *habu*, a pit viper, feeds on rats and other small animals and often enters the actual village area. Since rats outnumber humans in Okinawa by an approximate ratio of three to one, these snakes find ample food. Their search sometimes takes them into the rafters of thatch-roofed houses. This danger is present from March until October. People are bitten if they happen to step on the hidden reptiles or sometimes while they sleep. Children are taught by their elders to be careful, and during our study no children were bitten.

Insects are another source of irritation. Mosquitoes attack quite viciously during the summer; fleas, which live in the sand and in straw or reed mats, inflict bites at any time but are seldom carried in clothes. Flies do not seem to annoy the villagers although they are thick wherever food is left in the open and near the pig pens and outhouses.

The number of motor vehicles passing through Taira is small. A few heavy lumber trucks and an occasional U.S. Army vehicle drive through the main street. Four buses daily, two in the morning and two in the afternoon, connect Taira with other villages in Higashi township and the rest of the island. Because traffic is sparse, and it is difficult to catch a ride, persons intending to leave the community in the middle of the day often take the 50-minute walk to the other side of the island where buses pass every 30 minutes on the coastal highway. Villages frequently take trips to the nearby provincial market town of Nago or even to Naha, the capitol.

THE CLIMATE

In spite of Okinawa's subtropical geographic position, it has distinct seasonal differences demanding appropriate adjustments in living routine and clothing. Temperatures in the Taira region may reach a minimum of 38 degrees in January and February and a maximum of 96 degrees in July or August. The average daily mean temperature,

2:Maretzki & Maretzki E-5 (1954-1955) 1963 AC7 Okinawa AC7
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Chapter 9

Disease and Medical Practice

164 From a world-wide point of view, Okinawa is not one of the most diseased and famine-ridden areas. Still, the statement referring to pre-World War II times that "the inhabitants of the Ryukyus do not enjoy particularly good health" (*Civil Affairs Handbook, Ryukyu Islands,* 1944, p. 145) applies as well to the present. Although Okinawans have been subject to the special concern and control of both Ryukyuan and American authorities since World War II, general health conditions, particularly in the area of some major diseases, have not materially improved in the past five years. In 1954, 13,318 new cases* of communicable diseases were reported for all of the Ryukyus (Civil Affairs Activities in the Ryukyu Islands, vol. II, no. 2, 1954, pp. 176–177), or approximately one person in every 60 was affected. Among these, tuberculosis rated second highest (after venereal diseases), accounting for 2307 new cases or one in approximately every 333 persons. To these figures must be added patients from previous years whose cases are still active, in order to comprehend the severity with which this and other diseases affect the island. A further constant threat is dysentery and Japanese encephalitis, which occasionally affect villages like Taira with sudden epidemics. Another slightly less severe disease of constant concern is trachoma (1583 new cases reported in 1954). Less serious but quite prevalent are skin diseases and intestinal parasites. There are still several new cases of leprosy reported annually for the Ryukyus.

Taira, during our study, was spared any of the dangerous epidemics just mentioned, and even tuberculosis seemed to have a relatively low incidence in the village. There were several cases of pleurisy among some older students, some of whom had to stay home from school for an extended period of time. On the whole, serious communicable

* For a total population of 782,564.

21Maretzki & Maretzki E-5 (1954-1955) 1963 AC7 Okinawa AC7
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diseases seemed to be below the expected rate for Okinawa, in general, and we had the impression that Taira people are healthy on the whole. Only one case of leprosy, which had been removed to a special hospital on the island of Yagaji, was reported from Taira.

Among the children there were frequent complaints of intestinal diseases. Most children seem to lodge a variety of parasites, mostly hookworms and tapeworms, and many were subject to skin ailments. One girl had a severe case of what was thought by the nurse to be congenital syphilis. The skin of her whole body was covered with sores which were a constant source of irritation. This 4-year-old never appeared in the company of children other than her younger sister. She would stand in front of her house, her face swollen, her head stooped from discomfort and embarrassment. Almost all children have impetigo and various kinds of rashes. During the summer these cover their faces and parts of the body. Almost all have marks of boils which have plagued them in the course of years.

Because sickness is always a threat, it creates fear, and any explanation which may restore some hope is important knowledge. Although some Western or modern theories about disease have been introduced recently through the school and the village nurse, they filter into every house only slowly and do not materially affect what has been handed down as popular knowledge from older members of each household. Most Taira people are probably quite eclectic in their beliefs as well as in their choice of treatments, so that it would be difficult to ascribe to them any single body of theory of disease.

Home remedies, often applied by old women, are widespread. The most popular ones are blood letting and the use of *moxa* cautery. Whenever people agree that there is "bad" blood in an adult's or child's system, it must be removed. There are many phenomena which are accounted for by the presence of "bad" blood. Visible signs such as eczema of the skin or swellings are such indications, but malfunctioning of certain organs, the stomach, liver, kidneys, can also call for the removal of "bad" blood. Mothers expose infants as young as five days to the treatment, which may be preventive as well as curative. Pointing to a bluish green area on the infant's back (not the mongoloid spot), whether real or imagined, the mother swabs the area with sake before she or the grandmother make numerous ¼-inch incisions with a razor. After the blood starts to ooze out of the tiny wounds, more sake is rubbed into the skin. The mixture of blood and sake is caught and rubbed on again and again until all the undesirable blood has been drained.

So many Taira babies have eczema that this treatment takes place

frequently and may be repeated as many as four times during the first year of a child's life. An older child occasionally undergoes this treatment for a case of violent impetigo. Even a horse may be bled in this way for loss of appetite or other symptoms of disease.

A woman whose face had been struck in an unusual display of temper underwent a blood letting soon after a swelling appeared. Her neighbor from across the street, a farmer like everyone else, sterilized her cheek with iodine and then cut it with a razor until the blood flowed freely. After a night's rest, the woman appeared outside her house without any signs of swelling and seemingly recovered.

As was pointed out previously, many diseases are believed to be caused by supernatural forces: the ancestor spirits, spirits of those who have just died, and natural deities and evil spirits who wander around at night. The ancestors expect proper respect and attention and in general are benevolent unless neglected. Spirits of those who have recently died are most dangerous if the deceased is from another village. For deceased villagers one is careful to purify oneself after the funeral. The doors of each house are shut at night to protect against the evil spirits of the night air. Disease is less frequently caused by natural deities who have been neglected or mistreated.

In case of sickness or other unfortunate events in the family, somebody may go to consult the *yuta*, a shaman who communicates with the supernatural. She discovers the cause of misfortune with the help of rice oracles and through powers of divination received through visions and hallucinations. There is no *yuta* living in Taira now, so that people have to travel to the other side of the island, an hour or more on foot, if they want to learn about the source of some evil. Taira people make many such trips to consult this shamanistic specialist. The most common cause of misfortune discovered by the *yuta* is neglect of ceremonies to the ancestral gods or, less frequently, the neglect of ceremonies to the natural deities. Although the *yuta* stands in no direct connection with the high priestess, she may suggest that her client ask the priestess for special prayers to rectify the negligence. In such cases, then, the competence of individuals in the family may not be adequate to deal with the ancestral world, and the priestess enters into family religion.

Some Taira parents still find an adoptive parent for a sickly child in the belief that his own ancestors have caused bad health, and that this can only be remedied by making a formal arrangement which transfers ancestral responsibility for the child to another family. The child remains with his own parents and only visits his foster parents during the New Year and the midsummer Buddhist *Bon* Festival, which honors ancestors, and perhaps at one or two other occasions during the year.

842 of the economic hardship incurred as a result of large families. A few
[843] of the more outspoken mothers complain bitterly against the old peo-
[593] ple who expect them to continue bearing children, until three male heirs are born. Men desire male heirs, and one son is not enough: the favored number is three. Informal interviews reveal that in spite of the cultural preference for sons, mothers welcome daughters, who grow up to be useful helpers. Even if women protest when they feel tired of bearing children, they submit to their husband's demands. Since Japa-
551 nese given names are used today, the practice of naming a girl Sueko
553 (end child), to indicate that one considers her to be the last, is often
842 resorted to. If this proves insufficient and another follows, she might
[177] be called Tomeko (stop child). In one family the wife gave her baby girl the name Sueko to indicate that she did not desire any more children. Her husband, however, disagreed, for he wanted another son, and registered the child without his wife's knowledge under another name.

842 Although the older generation, which has supported large families,
744 looks on birth control measures with distaste, the young mothers circulate information published in Japanese magazines and by the Okinawan public health department on this matter, and a few families actually use contraceptives. However, in general, public health nurses
847 have found it extremely difficult to discuss matters like birth control, abortion, and infanticide with villagers. "We suspect that these measures are practiced everywhere. Of course, with the system of registration and public health nursing, infanticide is hardly possible; how-
[732] ever . . . we could not say. . . ." • It is interesting to note that in Taira there are mental defectives but no physical defectives. Abortion
[848] is legal with a doctor's consent, but informants claimed it was not practiced. There are illegitimate children born in the village.

842 "The seeds, they must match. If they do not match, then it cannot be," explain the villagers. They continue, "It is like planting a field, however; if the soil is hostile to growth, nothing can happen." Thus the villagers express their theories of conception.

843 Cessation of menstrual periods signals the start of pregnancy, and the sudden craving for a particular kind of food forces the woman to acknowledge the fact. Informal interviewing and casual observation
[461] reveal that morning sickness is not usual. Women rarely miss a work-
[522] ing day in the fields and mountains even in the early stages of pregnancy. One male who failed to appear for work with the rest of the male population of the village was the butt of many a joke. "How now, you are taking over the task of your wife?" teased the men and women.

● [164] Malfunction of the kidneys is not uncommon among pregnant

• Personal communication from public health nurses.

2:Maretzki & Maretzki E-5 (1954-1955) 1963 AC7 Okinawa AC7
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women in Taira. Three young mothers, who continued to work despite the discomfort and pain of swollen extremities, consulted with the doctor in the nearby town, and a fourth described this condition, which had prohibited her from any but the most simple and undemanding work. The old people look upon unusual pregnancies in askance. "Work, good, hard physical labor is what we did and we never had any difficulties. Young people pamper themselves."

Special foods and advice are proffered the expectant mother for the benefit of the baby. "Eat this so that you will have lots of milk for the baby. Remember that spicy things are bad for the baby. Do you recall the one who was born with a great patch of hair on its arms? Its mother was frightened by a great big cat while she was carrying that child," comment villagers to the mother. Some husbands indulge their wives' cravings for special delicacies like expensive imported fruits.

To keep the baby in position, a sash is wound several times about the pregnant woman's abdomen by a midwife or some old woman.

In the "old days" it was not unusual for a woman to return from the mountains or fields carrying her newborn. Grandmothers recall with relish the days when "Women paid little heed to their condition, did hard work, and had their babies without a whimper." "The women today pamper themselves," snap the wizened grandmothers watching an expectant mother resting between trips to the mountains.

As the day of parturition approaches, the expectant mother schedules her work to remain as close to the house as possible. When labor starts, she retires to the back room of the house, which is situated next to the kitchen. The medical practitioner, or in his absence a midwife,* is called to assist in the delivery. The husband's mother, if she lives in the house, or other older related women attend. A man may be present during his wife's first delivery but at subsequent births will wait with some of the women in the front room. In the old days a woman was supported by her husband or someone else in a half-sitting position. Nowadays, however, women give birth lying down. Only rarely does a woman in labor cry out in pain. Soft crying is permissible, but any loud demonstration would elicit contemptuous comments from the older women. "If you had worked hard, the baby would not be so big, then labor would not be difficult," is an often heard retort.

Informal interviewing revealed that birth takes place in a large number of cases during late evening or early morning hours. Usually children of the house sleep on undisturbed. Should they awake, they are kept out of the delivery room, although the youngest may be allowed to enter to visit with his mother shortly after delivery.

The newborn is bathed in tepid water then bundled in blankets,

* At present there is no midwife in Taira.

862

855 the mother becomes pregnant. Usually, however, weaning is not
[262] started in earnest until the mother is three months pregnant.

If the infant has a fever or "bad color," he may be subjected to an-
854 other painful experience, blood letting. Incisions are made on those
757 parts of the body which are thought to be affected, and blood is drawn and caught in a cup. The area is washed with sake. The mother often suckles the baby and holds him while the grandmother or some other older person performs the operation.

854 Babies are diapered and swaddled until they are about a year old. For the first two months their wet and soiled diapers are changed frequently; however, as time goes on, less attention is paid to wet diapers, although those soiled from excreta are promptly changed. Infants are checked often during the raw winter days, but because they are bundled so heavily, there is hardly any danger of their contracting colds as their
● [164] mothers fear. Severe urine burns and annoying diaper rash are more common than colds among young babies.

[855] Although care is taken to keep the infant as clean as possible during the first year of his life, this attitude changes as the child grows older.
[594] This is in large part due to the mother's inability to devote much time to her offspring once she has resumed full participation in economics activities. Depending on the season of the year, babies are bathed from
[744] every third or fourth day to once a week. They are bathed almost daily during the first two months of their lives as a result of the insistence of the village nurse. Water is heated on the kitchen hearth and poured into a small washpan. Mothers test the warmth of the water by immersing their arms up to the elbows and adding cold or hot water as they see fit. Soap is gently applied either with a soft washcloth or with the hands and rinsed off by splashing. On chilly winter days the bath takes place indoors, but on the hot sunny days it takes place right outside the kitchen door. In drying the baby, the mother places him in a large towel and pats the dampness from his body. She is careful to dry the skin at the joints where rash is likely to erupt. Except for the very poor, all families keep a bottle of talcum powder, which is applied right after the bath. Throughout the bath, the mother talks softly to the baby, smiling and tickling him. The atmosphere of the bath at this
[855] time contrasts sharply with that of a later time when the child is 2 and 3 years old.

863 Although there is hardly any possibility that the infant at this time would be able to smear himself with excreta, the opportunity for doing so is present later when he no longer wears diapers but is still untrained. It rarely happens, as the child is almost constantly watched by a caretaker. One mother reported disgustedly that her infant smeared

direction of some tombs in order to prevent the ghosts from coming into the yard. I have also seen a woman who had some training as a nurse throw salt over a hospital patient who had just had a major operation; this was, she said, to cleanse the patient and the bed. Salt is also used as a home remedy for stomach disorders. A mother or grandmother may rub salt on the navel of a child suffering from a stomach ache. According to a small boy who received this treatment, it works.

Prayers are directed toward the supernatural beings who may help one overcome an illness. Curses and spells are directed toward malevolent beings, usually ghosts, when they are the cause of illness. Spells (mannaa, Japanese 'majinai') are verbal formulae that have a magical effect. Persons who are known to know spells and who may be asked to use them for the benefit of others are called mannaasaa ('majinai suru hito'), but spells seem to be useful only for a few diseases and so there is probably little specialization in their use.

To indicate something of the mixture of the natural and the supernatural (to use Western categories) in the treatment of illness in the Okinawan home, I have appended a description of the notions about and treatment of a few diseases as observed and as described by informants. These are all skin ailments.

1. Kamigasaa A kasa (skin eruption or rash) caused by kami (gods).

a. Irigasaa Identified as the same as the Japanese 'hashika' (dictionary translation, "measles"). This disease is caught only once, usually as a child. One must catch it before he becomes a complete person ('ichininmae'). Because children sometimes die of it, parents worry before they have caught it but are eager to have it over with. There are lighter and heavier "requests" ('o-negai') so that if a child has a "light request" the parents of other children may bring them in to lie beside the sick child and eat what food he leaves in order that they may contact the disease. But the disease is given by the god and therefore the other children get it only if they were meant to do so.

The disease begins with a fever and then a rash appears on the head and moves downward. If the rash does not appear the fever may rise and therefore parents worry if the rash is delayed. If there is no rash visible it may be that the rash is on the inside unable to get out and thus is causing the fever. This is dangerous.

Careful treatment is essential. The god comes around to see how the patient is being treated; if the family is not watching the child carefully, the god makes the disease worse. In a case observed, the mother kept the child in bed covered with a thick quilt and mosquito net and sat beside him, fanning him almost continuously. Polite language is also necessary in order not to offend the god.

759 The yabuu also prescribe herbal remedies. They do not, however,
757 prepare their medicines, but rather instruct the patient how to gather and
[278] prepare the plants for use. The act of preparing one's own medicine may thus have a magical value. Yabuu also prescribe the eating of certain parts of certain animals for their good influence on the corresponding parts of the human body. Dogs and cats are among the animals so used. (This practice may be the source of the belief widespread among Americans on Okinawa that the Okinawans eat dogs; they do, on rare occasions, but not as food, merely as medicine.)

759 Short-cut Systems Standing somewhere between the yabuu and the modern doctor are several types of practitioners who give treatments with heat, light, steam, etc. as all-purpose cures. One man was observed to use a tube in which he burned a substance, probably moxa, while he moved it over the patient's body. His system seemed to be the moxibustion of the yabuu dressed up with "scientific" gadgets. He was described by a friend as "half-doctor half-yabuu", a description that was meant to elicit a favorable response since it implies that he possesses the efficacy of both.

759 In addition to these full-time professionals on the fringes of medi-
278 cine, there are also a number of part-time penicillin-shooters, who are par-
● [164] ticularly active in areas frequented by American personnel, where they are in demand for the treatment of venereal disease. Penicillin is sold freely and in quantity, perhaps because of the prevalence of venereal disease, and has become a very popular treatment even for very minor infections. Hormone shots also seem to be widely used by untrained persons.

759 Modern Medicine There are of course modern Japanese-trained doctors on
[177] Okinawa. But they are relatively few in number, about one for every 3,900 persons.[1] Trained nurses and medical facilities are also too few and too little. But even if there were more doctors and more facilities, it is doubtful that the ordinary Okinawan would make more use of them.

759 Medical doctors have a high status in Okinawan society. They are
753 admired and respected. Parents frequently express the wish that a son
829 might grow up to become a doctor. But the advice of the doctor is not al-
[554] ways heeded. The respect may be more for his education and the social position it gives him than for his professional opinion. In the matter of illness the advice that the ordinary Okinawan respects is more likely to be that of the older members of his own family and of the familiar yuta, sanjinsoo, and yabuu, for this advice is given in terms of insufficiency of worship, soul-loss, and the influence of the twelve-year-cycle. These are concepts that are familiar to him and have an integration with other beliefs, which the concepts dealt with by the doctor do not have. The doctor's very disregard of the supernatural runs counter to the feelings of the

[1] CAARI, Vol. 1, no. 2, p. 52 gives 126 practicing physicians for Okinawa plus 50 working for GRI. Japan has about one for every 1300 persons; Japan Statistical Yearbook, 1950, gives 63,273 (p. 432) and the total population as 80,216,896 (p. 12).